

In re Patent Application of

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty Dkt. 1721-21  
C# M#

BRUGIDOU et al

TC/A.U.

1648

Serial No. 10/018,433

Examiner: Brown

Filed: February 11, 2002

Date: March 3, 2004

Title: MEANS FOR IDENTIFYING A NOVEL CLASS OF GENES RESISTANT TO THE  
RICE YELLOW MOTTLE VIRUS AND THE LOCUS OF A MAJOR GENE OF  
RESISTANCE TO THE VIRUS, AND THEIR APPLICATIONS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE/AMENDMENT/LETTER**

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

☒ **Correspondence Address Indication Form Attached.**

**Fees are attached as calculated below:**

Total effective claims after amendment	0	minus highest number		
previously paid for	(at least 20) =	x	\$ 18.00	\$
Independent claims after amendment	0	minus highest number		
previously paid for	(at least 3) =	x	\$ 86.00	\$ 0.00
If proper multiple dependent claims now added for first time, add \$290.00 (ignore improper)				\$ 0.00
Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s) (\$110.00/1 month; \$420.00/2 months; \$950.00/3 months)				\$ 420.00
Terminal disclaimer enclosed, add \$ 110.00				\$ 0.00
<input type="checkbox"/> First/second submission after Final Rejection pursuant to 37 CFR 1.129(a) (\$770.00)				\$ 0.00
<input type="checkbox"/> Please enter the previously unentered , filed				
<input type="checkbox"/> Submission attached				

**Subtotal \$ 420.00**

If "small entity," then enter half (1/2) of subtotal and subtract **-\$ 0.00**  
☐ Applicant claims "small entity" status. ☐ Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee (\$180.00) **\$ 0.00**

Assignment Recording Fee (\$40.00) **\$ 0.00**

Other: **0.00**

**TOTAL FEE ENCLOSED \$ 420.00**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

1100 North Glebe Road, 8<sup>th</sup> Floor  
Arlington, Virginia 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100  
BJS:pp

NIXON & VANDERHYE P.C.  
By Atty: B. J. Sadoff, Reg. No. 36,663

Signature: \_\_\_\_\_



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

**BRUGIDOU et al**

Atty. Ref.: **1721-21**

Serial No. **10/018,433**

Group: **1648**

Filed: **February 11, 2002**

Examiner: **Brown**

For: **MEANS FOR IDENTIFYING A NOVEL CLASS OF GENES  
RESISTANT TO THE RICE YELLOW MOTTLE VIRUS  
AND THE LOCUS OF A MAJOR GENE OF RESISTANCE  
TO THE VIRUS, AND THEIR APPLIATIONS**

\* \* \* \* \*

**March 3, 2004**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE**

Responsive to the Office Action dated December 3, 2003, the applicants elect, with traverse, the subject matter of the Examiner's Group I, for further prosecution in the above.

Reconsideration and withdrawal of the restriction requirements are requested for any of the following reasons.

The Examiner is urged to appreciate that the present application is a 371 U.S. national phase of PCT/FR00/01723. Accordingly, the principles of unity of invention apply. The claims of the present application were found to define a single inventive concept during the International Phase. See, International Preliminary Examination Report, an English translation of which was submitted April 15, 2002.

The applicants respectfully submit that the Examiner has failed to establish that the claims do not define a special technical feature, such as by demonstrating that the subject matter of the Examiner's Groups I-IV fail to define a contribution, as a whole, over the prior art. See, Annex B of the PCT Administrative Instructions.

The Examiner's unsupported conclusions as to the alleged lack of the special technical feature in the subject matter of the Examiner's Groups II to IV is not sufficient to establish a lack of unity of invention.

Specifically, MPEP § 1850 states as follows, in relevant part (emphasis added):

37 CFR 1.475 Unity of invention before the International Searching Authority, the International Preliminary Examining Authority and during the national stage.

(a) An international and a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

(b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

.....

#### THE REQUIREMENT FOR "UNITY OF INVENTION"

Any international application must relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ( PCT Article 3(4)(iii) and

17(3)(a), PCT Rule 3.1, and 37 CFR 1.475). Observance of this requirement is checked by the International Searching Authority and may be relevant in the national (or regional) phase.

The decision in *Caterpillar Tractor Co. v. Commissioner of Patents and Trademarks*, 231 USPQ 590 (E.D. Va. 1986) held that the Patent and Trademark Office interpretation of 37 CFR 1.141(b)(2) as applied to unity of invention determinations in international applications was not in accordance with the Patent Cooperation Treaty and its implementing regulations. In the *Caterpillar* international application, the USPTO acting as an International Searching Authority, had held lack of unity of invention between a set of claims directed to a process for forming a sprocket and a set of claims drawn to an apparatus (die) for forging a sprocket. The court stated that it was an unreasonable interpretation to say that the expression "specifically designed" as found in former PCT Rule 13.2(ii) means that the process and apparatus have unity of invention if they can only be used with each other, as was set forth in MPEP § 806.05(e).

Therefore, when the Office considers international applications as an International Searching Authority, as an International Preliminary Examining Authority, and during the national stage as a Designated or Elected Office under 35 U.S.C. 371, PCT Rule 13.1 and 13.2 will be followed when considering unity of invention of claims of different categories without regard to the practice in national applications filed under 35 U.S.C. 111. No change was made in restriction practice in United States national applications filed under 35 U.S.C. 111 outside the PCT.

In applying PCT Rule 13.2 to international applications as an International Searching Authority, an International Preliminary Examining Authority and to national stage applications under 35 U.S.C. 371, examiners **should** consider for unity of invention all the claims to different categories of invention in the application and permit retention in the same application for searching and/or preliminary examination, claims to the categories which meet the requirements of PCT Rule 13.2.

PCT Rule 13.2, as it was modified effective July 1, 1992, no longer specifies the combinations of categories of invention which are considered to have unity of invention.

Those categories, which now appear as a part of Annex B to the Administrative Instructions, has been substituted with a statement describing the method for determining whether the requirement of unity of invention is satisfied. Unity of invention exists only when there is a technical relationship among the claimed inventions involving one or more special technical features. The term "special technical features" is defined as meaning those technical features that define a contribution which each of the inventions considered as a whole, makes over the prior art. The determination is made based on the contents of the claims as interpreted in light of the description and drawings. Annex B also contains examples concerning unity of invention.

#### A. Independent and Dependent Claims

Unity of invention has to be considered in the first place only in relation to the independent claims in an international application and not the dependent claims. By "dependent" claim is meant a claim which contains all the features of another claim and is in the same category of claim as that other claim (the expression "category of claim" referring to the classification of claims according to the subject matter of the invention claimed, for example, product, process, use or apparatus or means, etc.).

If the independent claims avoid the prior art and satisfy the requirement of unity of invention, no problem of lack of unity arises in respect of any claims that depend on the independent claims. In particular, it does not matter if a dependent claim itself contains a further invention. Equally, no problem arises in the case of a genus/species situation where the genus claim avoids the prior art. Moreover, no problem arises in the case of a combination/subcombination situation where the subcombination claim avoids the prior art and the combination claim includes all the features of the subcombination.

If, however, an independent claim does not avoid the prior art, then the question whether there is still an inventive link between all the claims dependent on that claim needs to be carefully considered. If there is no link remaining, an objection of lack of unity (that is, arising only after assessment of the prior art) may be raised. Similar considerations apply in the case of a genus/species or combination/subcombination situation.

This method for determining whether unity of invention exists is intended to be applied even before the commencement of the international search. Where a search of the prior art is made, an initial determination of unity of invention, based on the assumption that the claims avoid the prior art, may be reconsidered on the basis of the results of the search of the prior art.

...

PCT Rule 13.3 requires that the determination of the existence of unity of invention be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

PCT Rule 13.3 is not intended to constitute an encouragement to the use of alternatives within a single claim, but is intended to clarify that the criterion for the determination of unity of invention (namely, the method contained in PCT Rule 13.2) remains the same regardless of the form of claim used.

PCT Rule 13.3 does not prevent an International Searching or Preliminary Examining Authority or an Office from objecting to alternatives being contained within a single claim on the basis of considerations such as clarity, the conciseness of claims or the claims fee system applicable in that Authority or Office.

The present Examiner has not cited any art against any of the claims such that the special technical feature of the claims must be acknowledged to define a contribution, as a whole, over the art. According to the above therefore, unity of invention exists. Moreover, as noted in the above-quoted passage, different categories of claims should be considered and retained where a special technical feature exists.

The Examiner has asserted that the subject matter of the Examiner's Groups II and IV are separately patentable from Group I and from each other because Groups II

and IV are "directed to proteins and nucleic acid sequences respectively. Thus Groups II and IV fail to include a method step wherein viral recognition and transport proteins are isolated." See, page 2 of the Office Action dated December 3, 2003. The Examiner is urged to appreciate however that claim 6, which defines the subject matter of the Examiner's Group II, is dependent of claims 1-5 and therefore necessarily includes all the details of the Examiner's Groups I (which is defined by claims 1-5). Similarly, claim 8 (and claims 9-14 dependent therefrom) which defines the subject matter of the Examiner's Group IV is dependent of claim 6 and therefore necessarily includes all the details of the Examiner's Groups II and I.

The subject matter of the Examiner's Groups I, II and IV, share common special technical feature and the restriction requirement with regard to the same should be withdrawn.

Moreover, the applicants note that Example 17 of Annex B of the PCT Administrative Instructions state that unity exists between a claim to a "Protein X" and a separate claim to "DNA sequence encoding protein X" because "expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between [the] claims is accepted." Accordingly, in further view of Example 17 of Annex B, the applicants submit that the Examiner's stated basis for finding a lack of unity between the subject matter of the Examiner's Groups II and IV (i.e., "Group IV is also distinguished from the polypeptide of Group II in that Group IV is directed to a nucleotide sequence." (See, page 3 of the Office Action of December 3, 2003)) is contrary to the PCT Administrative Instructions and should be withdrawn.

As for the subject matter of the Examiner's Group III, i.e., as defined by claim 7, the applicants note that as claim 7 is dependent on claim 6, which is dependent on claims 1-5, the subject matter of the Examiner's Group III necessarily includes the subject matter of the Examiner's Groups I and II.

Unity of invention exists between the subject matter of the Examiner's Groups I-IV and withdrawal of the restriction requirement is requested.

The Examiner in the above has not demonstrated that the pending claims do not share the same or corresponding special technical feature, as described in MPEP § 1850, and the restriction requirement of December 3, 2003, therefore should be withdrawn, and all the claims examined on the merits.

The Examiner is requested to contact the undersigned in the event anything further is required for responding to the Office Action of December 3, 2003.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



**B. J. Sadoff**  
Reg. No. 36,663

**BJS:pp**

1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100